UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/795,922	03/08/2004	Fatih Comlekoglu		1816

7590 08/31/2007	EXAMINER
Scot A. Reader, P.C	JOHNSON, CARLTON
Suite 224	
1320 Pearl St.	
Boulder, CO 80302	

ART UNIT	PAPER NUMBER
2136	

MAIL DATE	DELIVERY MODE
08/31/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

		Application No.	Applicant(s)
Office Action Summary		10/795,922	COMLEKOGLU ET AL.
		Examiner	Art Unit	
		Carlton V. Johnson	2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>02 July 2007</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-28</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-28</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.　This action is responding to application papers filed on **7-2-2007**.

2.　Claims **1 - 28** are pending. Claims **1, 13, 22** are independent.

Response to Arguments

3.　Applicant's arguments filed 7/2/2007 have been fully considered but they are not persuasive.

3.1　Applicant argues that the referenced prior art does not disclose, denying network access to a VPN capable end system before a user on the end system becomes authenticated. (see Remarks Page 2); performing the denying and permitting steps of claim 1 on an end system. (see Remarks Page 4)

The Cheline prior art discloses that network-access is only enabled (allowed) after the completion of an authentication procedure. Therefore, network-access must not be allowed (denied) before authentication.   This disclosure satisfies the requirement that network access is denied before authentication. (see Cheline paragraph [0049], lines 1-4; paragraph [0049], lines 8-14: access to server side from client side allowed if authentication is valid, access not allowed be authentication is successful; paragraph [0027], lines 10-15: only access VPN after authentication, access denied before authentication)

Applicant indicated that the prior art states that the radius software is part of the modem. (see Cheline paragraph [0043], lines 15-16: RADIUS software) The location

of the RADIUS software does not remove the fact that network access is only allowed

after authentication is successful.   In any event, the Cheline prior art actually discloses

that the RADIUS client software is preferably located on the modem but the RADIUS

client software may not be located on the modem.   This is stated as a preference for

ease of use not a requirement.

RADIUS is defined as, "The de facto standard protocol for authentication servers

(AAA servers). Developed by Livingston Enterprises (later acquired by Lucent).

RADIUS uses a challenge/response method for authentication." (http://computing-

dictionary.thefreedictionary.com/radius) RADIUS is merely a protocol utilized to

complete an authentication procedure between a client and a server.   The actual

access control information exists on the client and the server (authentication) systems,

and network access is enabled between the client and the server.

The referenced prior art discloses the claim limitation of access only after

authentication.

3.2   Applicant argues that the referenced prior art does not disclose, permitting

network access by the end system solely on at least one VPN connection to an

enterprise network once the user on the end system becomes authenticated. (see

Remarks Page 3)

The Cheline prior art discloses that network access between the two systems (the

end system and the enterprise (server system)) is based on at least one VPN

communications connection.   (see Cheline paragraph [0015], lines 2-10; paragraph

[0016]; lines 1-4; paragraph [0016], lines 14-17: VPN communications authenticated and setup between a client and server)   Communications between the end user and the enterprise utilizes VPN connections (at least one or maybe more).   The claim limitation only mentions network access between an end system and the enterprise system.   The claim limitation does not disclose anything about other network accesses by the client (end) system or other end systems.   The claim limitation only states that network access between an end system and an enterprise network (server system) is solely based on at least one (maybe more) VPN connection.

The referenced prior art discloses the claim limitation of secure network communications by at least one VPN connection.

3.3   Applicant argues that the referenced prior art does not disclose, permitting write access to the end system solely to at least one temporary memory while the VPN connection is active. (see Remarks Page 3); purging the temporary memory once the VPN connection becomes inactive. (see Remarks Page 4); directing data writes to a RAM disk on the end system. (see Remarks Page 4)

The Cheline prior art discloses memory utilization by the end system while communications is active. Memory is a standard part of any computer system (whether designated either as a client or a server). Memory is the electronic holding place (shorter synonym for random access memory (RAM)) for instructions and data that your computer's microprocessor can reach quickly. When your computer is in normal operation, its memory usually contains the main parts of the operating system and some

or all of the application programs and related data that are being used (related data:

including VPN data).

(http://searchmobilecomputing.techtarget.com/sDefinition/0,,sid40_gci212546,00.html)

Memory is utilized as a work buffer (data reads, data writes) for applications such as

VPN communications applications on client systems.

The Cheline prior art discloses computer systems for client and server systems.

The claim limitation discloses utilizing a memory (random access memory) for data

writes (storage of data, buffer space). The Cheline prior art discloses the capability to

write data (application related data) into memory utilized for storage such as buffer

space for applications such as a VPN communications application. (see Cheline

paragraph [0015], lines 2-7; paragraph [0031], lines 3-5: VPN capable client system

(computer, handheld device))

The referenced prior discloses the claim limitation.

3.4   Applicant argues that the referenced prior art does not disclose, restarting or

shutting down the end system once the VPN connection becomes inactive. (see

Remarks Page 5)

There is no indication in the claim limitation that a restart is part of the VPN

termination procedure. The limitation merely states that at some point after the

termination of the VPN connection, the end system restarts.   The Cheline prior art

discloses the capability for a system restart or reboot, and the Cheline prior art

discloses the capability to terminate a VPN connection when inactive. The Cheline prior

art discloses the capability for a VPN connection (see Cheline paragraph [0015], lines 2-10: VPN connection, client-server; paragraph [0076], lines 1-6: terminate VPN, session inactive), and the capability to perform a reboot (system restart) procedure (see Cheline paragraph [0065], lines 1-3: system reboot capability)

3.5   Applicant argues that the referenced prior art does not disclose, operating system software on or for a VPN capable end system. (see Remarks Pages 5, 6)

The Cheline prior art discloses an Operating System for controlling software on a prior art system.   (see Cheline paragraph [0047], lines 6-10: OS)   The client or end system is disclosed as a computer system, which is controlled by an Operating System (OS) whether a PC or a PDA type device. (see Cheline paragraph [0015], lines 2-7; paragraph [0031], lines 3-5: VPN capable client system (computer, handheld))   Both computer systems (client (end system), server) are VPN capable systems. (see Cheline paragraph [0015], lines 2-10: VPN system)

3.6   Applicant argues that the referenced prior art does not disclose, dropping packets that are not associated with the VPN connection. (see Remarks Page 6)

The Cheline and Nguyen prior art combination disclose dropping data packets, which are not destined for the VPN connection or are designated as suspicious data packets. (see Nguyen paragraph [0954], lines 1-7: VPN technology; paragraph [0978], lines 4-7; paragraph [0979], lines 11-15; paragraph [1087], lines 14-17: invalid packets, not associated with application (FTP, VPN) connection dropped, also unapproved connections dropped (not initiated))

3.7   The examiner has considered the applicant's remarks concerning a thin client

VPN capable end system denied network connectivity except for conducting VPN

sessions, and the end system directs all data writes during VPN sessions to a

temporary memory that is purged at the end of the session.   Applicant's arguments

have thus been fully analyzed and considered but they are not persuasive.

   After an additional analysis of the applicant's invention, remarks, and a search of

the available prior art, it was determined that the current set of prior art consisting of

Cheline (20030041136) and Nguyen (20030172145) discloses the applicant's invention

including disclosures in Remarks dated June 2, 2007.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(e)

that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by
> the applicant for patent, except that an international application filed under the treaty defined in
> section 351(a) shall have the effects for purposes of this subsection of an application filed in the
> United States only if the international application designated the United States and was published
> under Article 21(2) of such treaty in the English language.

5.   Claims **1 - 5, 7 - 15, 17 - 24, 26 - 28** are rejected under 35 U.S.C. 102(e) as

being anticipated by **Cheline et al.** (US PGPUB No. **20030041136**).

Regarding Claims 1, 22, Cheline discloses a method for reducing the vulnerability of

an enterprise network to a malicious code attack from a virtual private network (VPN)

capable end system, comprising:

   a) denying network access to a VPN capable end system before a user on the end

      system becomes authenticated; (see Cheline paragraph [0043], lines 1-8;

      paragraph [0069], lines 4-11: access only after user authentication)

   b) permitting network access by the end system solely on at least one VPN

      connection to an enterprise network once the user on the end system becomes

      authenticated; (see Cheline paragraph [0049], lines 8-14; paragraph [0071], lines

      1-3: access only after user authentication) and

   c) permitting write access to the end system solely to at least one temporary

      memory while the VPN connection is active. (see Cheline paragraph [0049], lines

      11-14: transfer of information between systems) .

Regarding Claim 2, Cheline discloses the method of claim 1, wherein the recited steps

are performed on the end system. (see Cheline paragraph [0043], lines 1-8; paragraph

[0069], lines 4-11; paragraph [0049], lines 8-14; paragraph [0071], lines 1-3; paragraph

[0049], lines 11-14: VPN setup, users authenticated, data access enabled)

Regarding Claims 3, 14, 23, Cheline discloses the method of claim 1, further

comprising the step of purging the temporary memory once the VPN connection

becomes inactive. (see Cheline paragraph [0076], lines 1-5: VPN torn down, tunnel

disconnected, security information in temporary memory removed)

Regarding Claims 4, 15, 24, Cheline discloses the method of claim 1, further

comprising the step of authenticating the user. (see Cheline paragraph [0049], lines 8-

14: authenticate user)

Regarding Claim 5, Cheline discloses the method of claim 4, wherein the

authenticating step comprises a two factor user authentication. (see Cheline paragraph

[0027], lines 8-15: two factor authentication, 1: userid and password, 2: digital

certificates)

Regarding Claim 7, Cheline discloses the method of claim 1, wherein the step of

permitting write access comprises directing data writes to a RAM disk on the end

system. (see Cheline paragraph [0071], lines 1-3: VPN access to end system enabled)

Regarding Claims 8, 17, 26, Cheline discloses the method of claim 1, further

comprising the step of logging the user off the end system once the VPN connection

becomes inactive. (see Cheline paragraph [0076], lines 1-5: logoff, VPN disconnected

or inactive)

Regarding Claim 9, Cheline discloses the method of claim 1, further comprising the

step of restarting the end system once the VPN connection becomes inactive. (see

Cheline paragraph [0076], lines 1-5: relogon, restarting end system)

Regarding Claims 10, 19, 28, Cheline discloses the method of claim 1, further

comprising the step of shutting down the end system once the VPN connection

becomes inactive. (see Cheline paragraph [0076], lines 10-14: VPN disconnected,

tunnel torn down)

Regarding Claim 11, Cheline discloses the method of claim 1, wherein the VPN

connection becomes inactive through an action initiated on the end system. (see

Cheline paragraph [0076], lines 7-8: logoff, action initiated by user)

Regarding Claim 12, Cheline discloses the method of claim 1, wherein the VPN

connection becomes inactive through an action initiated external to the end system.

(see Cheline paragraph [0076], lines 1-5: timeout (i.e. action external to system), VPN

disconnected (i.e. inactive))

Regarding Claims 13, 20, 21, Cheline discloses a virtual private network (VPN)

capable end system, comprising:

  a) at least one permanent memory; (see Cheline page 11, claim 13: computer-

  readable medium, memory, storage)

  b) at least one temporary memory; (see Cheline paragraph [0058], line 1: temporary

  memory)

    c) at least one processor coupled to the permanent memory and the temporary

memory; (see Cheline paragraph [0047], lines 1-3: processor) and

    d) operating software stored on the permanent memory, the operating software

having instructions executable by the processor to deny network access to the

end system before a user on the end system becomes authenticated and, once

the user on the end system becomes authenticated, to permit network access by

the end system solely on at least one VPN connection to an enterprise network

and permit write access solely to the temporary memory while the VPN

connection is active. (see Cheline paragraph [0047], lines 6-20: operating system

software, perform functions; page 11, claim 13: computer-readable medium)

Regarding Claim 18, Cheline discloses the end system of claim 13, wherein the

operating software has instructions executable by the processor to restart the end

system once the VPN connection becomes inactive. (see Cheline paragraph [0076],

lines 1-5: relogon (i.e. restart) end system)

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims **6, 16, 25** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Cheline in view of Nguyen **et al.** (US PGPUB No. **20030172145**).

Regarding Claims 6, 16, 25, Cheline discloses the method of claim 1, wherein the step

of permitting network access. (see Cheline paragraph [0071], lines 1-3: enable network

access, VPN)   Cheline does not specifically disclose dropping packets that are not

associated with the VPN connection. However, Nguyen disclose wherein dropping

packets that are not associated with the VPN connection. (see Nguyen paragraph

[0954], lines 1-7: VPN technology; paragraph [0978], lines 4-7; paragraph [0979], lines

11-15; paragraph [1087], lines 14-17: invalid packet; not associated with VPN

connection dropped, unapproved connections dropped)

It would have been obvious to one of ordinary skill in the art to modify Cheline as

taught by Nguyen to enable the capability to drop packets that are not associated with

the VPN connection.   One of ordinary skill in the art would have been motivated to

employ the teachings of Nguyen in order to enable the capability to leverage the

Internet for useful and vital business activities.   (see Nguyen paragraph [0029], lines 1-

8: " ... *For enterprises and service providers alike, knowing how to leverage the Internet*

for more than mere Web advertising and e-mail access may be vital to remaining

competitive in today's increasingly Net-driven markets. Successful service providers

and commercial enterprises may differentiate themselves by the way they use Internet

technology to rapidly create and deploy new services and implement new business

models. ... ")

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Carlton V. Johnson whose telephone number is 571-

270-1032. The examiner can normally be reached on Monday thru Friday , 8:00 -

5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Nasser Moazzami can be reached on 571-272-4195. The fax phone

number for the organization where this application or proceeding is assigned is 571-
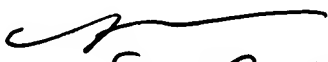
273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Carlton V. Johnson
Examiner
Art Unit 2136

NASSER MOAZZAMI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

CVJ
August 20, 2007